

## **ELEMENT 715: COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN FOR NARRAGANSETT BAY**

### **01 INTRODUCTION**

The State Planning Council adopted this element of the State Guide Plan on October 8, 1992. [Note: The Council adopted revisions on December 10, 1992, which do not affect this Overview.] The plan was prepared by the Narragansett Bay Project, which was funded from 1985 to 1992 as part of the Environmental Protection Agency's (EPA) National Estuary Program. The project was overseen by an Executive Committee comprised of EPA, the Department of Environmental Management (DEM), the Coastal Resources Management Council (CRMC), and the Division of Planning. A larger Management Committee reviewed drafts of the plan in depth.

The purpose of the plan, as set forth in section 320 of the federal Clean Water' Act, is to recommend priority actions addressing point and nonpoint sources of pollution, so as to restore and maintain the Bay's water quality, natural habitats, and recreational values. To carry out this charge, the Project undertook scientific and policy studies, educated the public, initiated pilot programs, prepared briefing papers, and completed the plan.

The plan is over 500 pages long. An Executive Summary at the front takes up 24 pages. Part 01 is an introduction, explaining the need for the plan and the process of developing it. Part 02 provides background on the 'state of the Bay.' Part 03 sets forth goals. Part 04, the bulk of the plan, presents analysis and recommendations on the major issues identified. Part 05 deals with implementation. Part 06 consists of tables summarizing recommendations and costs. Research reports and briefing papers (on which the plan is based) were published separately.

### **02 ISSUES ADDRESSED**

The Narragansett Bay watershed encompasses 1,657 square miles, 61 percent of it in Massachusetts (see Figure 715(01)). Within the watershed are 100 municipalities, including the cities of Worcester, Fall River, and Providence. It has one of the highest population densities of any estuary in the country: 1,109 people per square mile based on the 1980 Census.

The overriding pollution problem in the Narragansett Bay basin is sewage. It is discharged from 33 wastewater treatment plants, from more than 100 combined sewer overflows, and from on-site sewage disposal systems. Presently, 40 percent of the Bay is permanently or conditionally closed to shellfishing.

Another serious problem, because of the region's long industrial history, is toxic pollutants. Industrial loadings have been reduced since the 1970s. However, contaminated sediments remain, and other sources are significant (e.g., commercial and household hazardous wastes, highway runoff).

Another major issue is management of living resources. Some important fisheries have declined or disappeared (winter flounder, oyster, bay scallop, and others). More effort is needed to restore or maintain harvests, and to protect critical habitats and sensitive natural resources.

In all, a dozen issues are addressed in individual chapters of the plan:

### **Source control/source reduction**

Toxics--heavy metals and organic chemicals

Nutrients--nitrogen and phosphorus

Water management and wastewater treatment Combined sewer overflows

On-site sewage disposal systems

Boater discharges

Nonpoint sources--stormwater runoff, septic systems, erosion, etc.

### **Resource protection**

Land use

Critical areas

Public health--threat of pathogens and toxics, from eating seafood or swimming in the Bay

(Reserved for future study: management of living marine resources)

### **Areas of special concern**

Mount Hope Bay Blackstone River

(Reserved for future study: Greenwich Bay Management of marine and riverine sediments)

## **03 GOALS**

The goals of the plan are listed below. They refer to actions that should be taken by the State of Rhode Island and the Commonwealth of Massachusetts, in conjunction with federal and local government.

### **Statement of the goals for restoring and protecting Narragansett Bay**

1. Prevent further degradation and incrementally improve water quality in developing coastal areas with deteriorating water quality.
2. Protect diminishing high quality critical resource areas throughout the Bay basin.
3. More effectively manage commercially, recreationally, and ecologically important estuarine-dependent living resources.
4. Rehabilitate degraded waters throughout the Bay basin and restore water quality-dependent uses of Narragansett Bay.
5. Establish necessary interstate and interagency agreements and mechanisms to coordinate and oversee implementation of the Narragansett Bay Comprehensive Conservation and Management Plan.

## 04 STRATEGIES

The plan makes over 500 recommendations to deal with the issues listed above. Through the planning process, the following highest-priority actions were identified.

- 1 . Adopt legislation requiring municipalities to establish wastewater management districts. Amend existing regulations governing siting, design, construction, and maintenance of on-site sewage disposal systems.
2. Implement a marine pump-out facility plan for Narragansett Bay that includes a consistent written policy for (1) regulating the construction of marinas, docks, and mooring fields and (2) enforcing prohibitions against boater discharges in Narragansett Bay.
3. Develop guidance for municipal officials regarding (1) 'best management practices' to control nonpoint source pollution, (2) innovative, environmentally protective land management and growth management practices; and (3) development of local and regional stormwater management plans to reduce or treat storm runoff.
4. Develop statewide Critical Resource Protection Policies that include (1) objective criteria for designating critical resources and critical resource protection areas, (2) a Geographic Information System-based mapped inventory of identified resources, and (3) regulatory and non-regulatory controls for protecting identified critical resources.
5. Prepare a Special Area Management (SAM) Plan for Greenwich Bay.
6. Develop species-specific management plans for managing (1) commercially, recreationally, and ecologically important fish and shellfish; (2) all threatened and endangered estuarine-dependent plants and animals; and (3) the re- introduction of native anadromous and catadromous fisheries to Bay tributaries, wherever possible.
7. Revise existing municipal and industrial discharge permits to include enforceable, numeric, and chemical-specific limits for all toxic chemicals listed on the Narragansett Bay "List of Toxics of Concern." Enforce compliance with these revised discharge limits. Include other significant non-industrial sources of toxic chemicals in these regulatory programs in order to meet state water quality goals for state waters.
8. Continue efforts to abate the combined sewer overflows (CSOS) in Mount Hope Bay and the Providence and Blackstone Rivers in accordance with a statewide CSO abatement priority ranking system.
9. Establish a Narragansett Bay Implementation Committee, a Narragansett Bay Policy Committee, and a Narragansett Bay planning section to oversee CCMP implementation.
10. Implement a long-term monitoring program for Narragansett Bay.

The plan estimates costs for implementing the recommendations, over the next five years and beyond. Costs to state and municipal government are shown. Breakdowns are given by state, by agency, and by type of cost (personnel or capital). The plan also analyzes alternative revenue sources, both existing and new, and presents a funding strategy.

As indicated in the last two high-priority actions above, the implementation strategy includes continuing oversight by governing committees, with a small planning staff, and monitoring of the Bay. Further studies remain to be completed. Public participation is to continue. A number of agencies made preliminary commitments in 1992 to implement recommendations for which they are responsible.